## CONTRIBUTION OF NATURE CONSERVATION RELATED CITIZEN SCIENCE PROJECTS TO LEARNING, ATTITUDE AND BEHAVIORAL CHANGE OF PARTICIPANTS

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Nature Conservation related Citizen Science (NCCS) is an emerging area of research and practice where volunteers take part in a scientific process, usually focusing on data gathering or monitoring for conservation purposes. Their observations and data have been reported to contribute to nature conservation and science, but research on the potential of NCCS in changing the behavior, attitudes, and learning of participants has started to emerge as well. Here we present a review of studies where questionnaire surveys were used to measure the impacts of NCCS projects on learning, attitude, and behavioral change of volunteers during and after their participation in the projects. Our results show that many NCCS projects have enhanced learning of participants in different areas, (e.g. increasing knowledge on species recognition, understanding the scientific process, and the conservation of species and habitats). On the other hand, studies show that participation affected the participants' attitudes toward nature conservation. Participants started to appreciate some species and nature more which led to taking action for their conservation. We describe the common characteristics of NCCS projects, where gains in knowledge were linked to attitude and behavioral changes. These can be used as recommendations for further NCCS project design, and the improvement of current CS initiatives to aid nature conservation.